# Designer's Kit K3-ERASM+

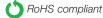


MINI-CIRCUITS DESIGNER'S KITS

SPEED UP

THE SOLUTION!

## DC to 4 GHz



### **ERA-SM+ Features**

- •Wideband, 50  $\Omega$
- •Up to +18.4 dBm typ. output power
- ·Low thermal resistance
- Miniature microwave amplifier
- •Plastic micro-x surface mount package



Kit K3-ERASM+ Electrical specifications of each model (3 models, 10 of each, 30 total)

Evaluation boards available See individual model data sheets.

| Model                            | Freq.<br>GHz                   | Gain, dB Typical     |        |           |        |                      |                  |                            | Max.<br>Pwr. (dBm)<br>@ 1 GHz |                      |                    | Dynamic<br>Range<br>@ 1 GHz |                   | VSWR<br>(:1)<br>Typ. |                   |                   |                   | Absolute<br>Max.<br>Rating <sup>1</sup> |                | DC <sup>2</sup> Operating Power                      |                     | Evaluation<br>Board                 |
|----------------------------------|--------------------------------|----------------------|--------|-----------|--------|----------------------|------------------|----------------------------|-------------------------------|----------------------|--------------------|-----------------------------|-------------------|----------------------|-------------------|-------------------|-------------------|---|----------------|--|---------------------|-------------------------------------|
|                                  | f <sub>L</sub> -f <sub>U</sub> | ove                  | er fre | quer<br>2 | ncy, ( |                      | Min@<br>2 GHz    | Out<br>(1 c<br>Cor<br>Typ. | dB                            | Input <sup>1</sup>   | NF<br>(dB)<br>Typ. | IP3<br>(dBm)<br>Typ.        | I<br>DC-3<br>GHz  |                      | Oi<br>DC-3<br>GHz | -                 | I<br>(mA)         | P<br>(mW)                               | Current (mA)   | <ul><li>Device Volt.</li><li>Typ. Min.Max.</li></ul> | θjc<br>Typ.<br>°C/W |                                     |
| ERA-4SM+<br>ERA-5SM+<br>ERA-6SM+ | DC-4                           | 14.3<br>20.2<br>12.6 | 19.5   | 17.6      | 15.6   | 11.8<br>14.0<br>11.3 | 11<br>16<br>10.5 |                            | 15.0<br>16.5<br>16.0          | 20.0<br>13.0<br>20.0 | 4.2<br>4.3<br>4.5  | 34.0<br>32.5<br>36.0        | 1.2<br>1.3<br>1.3 | 1.2<br>1.3<br>1.2    | 1.3<br>1.2<br>1.6 | 1.8<br>1.3<br>1.8 | 120<br>120<br>120 | 650<br>650<br>650                       | 65<br>65<br>70 | 4.5 4.2 5.5<br>4.9 4.2 5.5<br>5.0 4.6 5.6            | 196<br>133<br>143   | TB-408-4+<br>TB-408-5+<br>TB-408-6+ |

#### Protected under U.S. Patent 6,943,629

- ▲ Low frequency cutoff determined by external coupling capacitors. f<sub>U</sub> is the upper frequency limit for each model.
- 1. Permanent damage may occur if any of these limits are exceeded. These ratings are not intended for continuous normal operation.
- 2. Supply voltage must be connected to pin 3 through a bias resistor in order to prevent damage. See "Biasing MMIC Amplifiers" at minicircuits.com/applications.shtml. Reliability predictions are applicable at specified current and normal operating conditions.



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